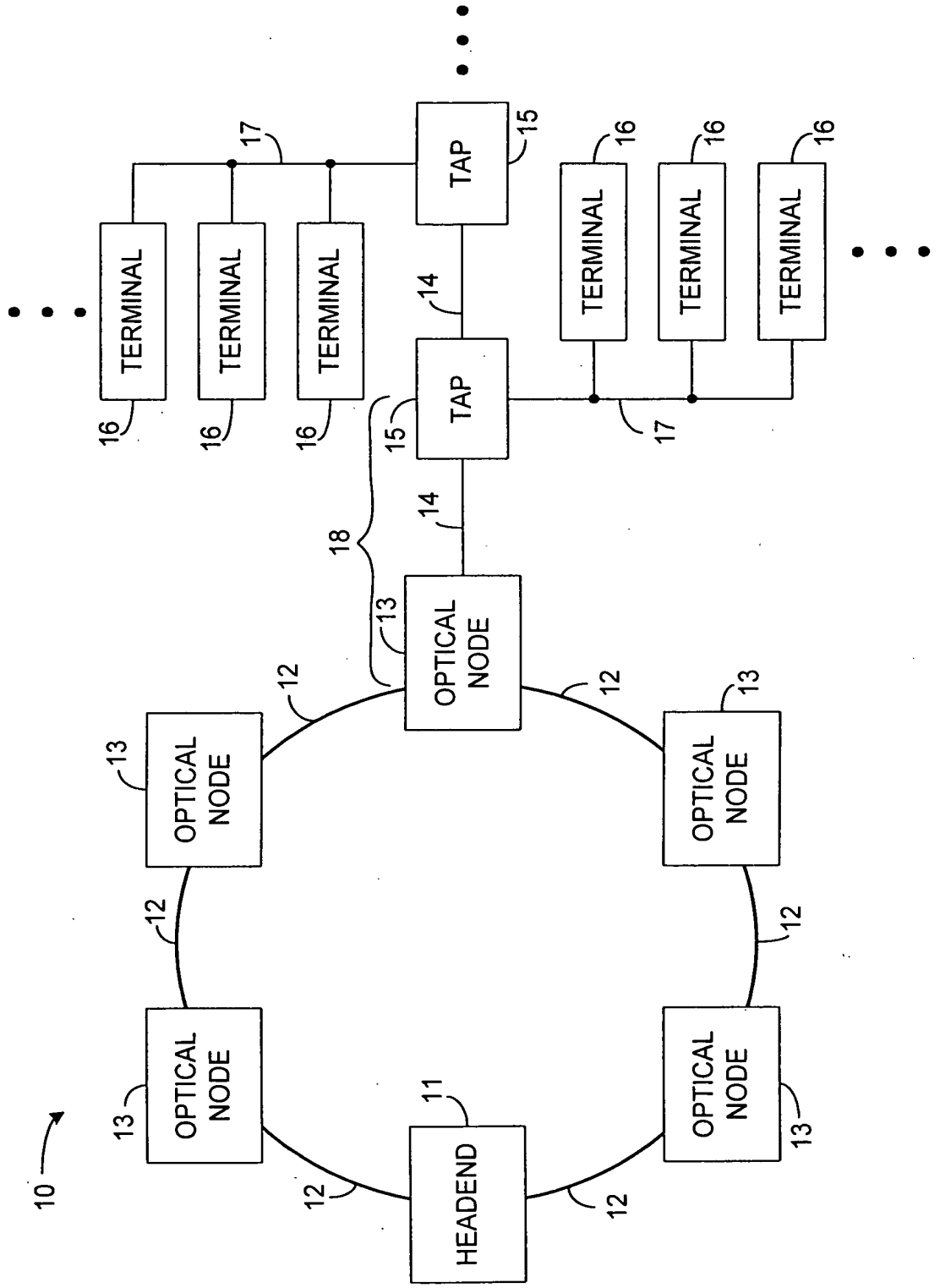



FIG. 1

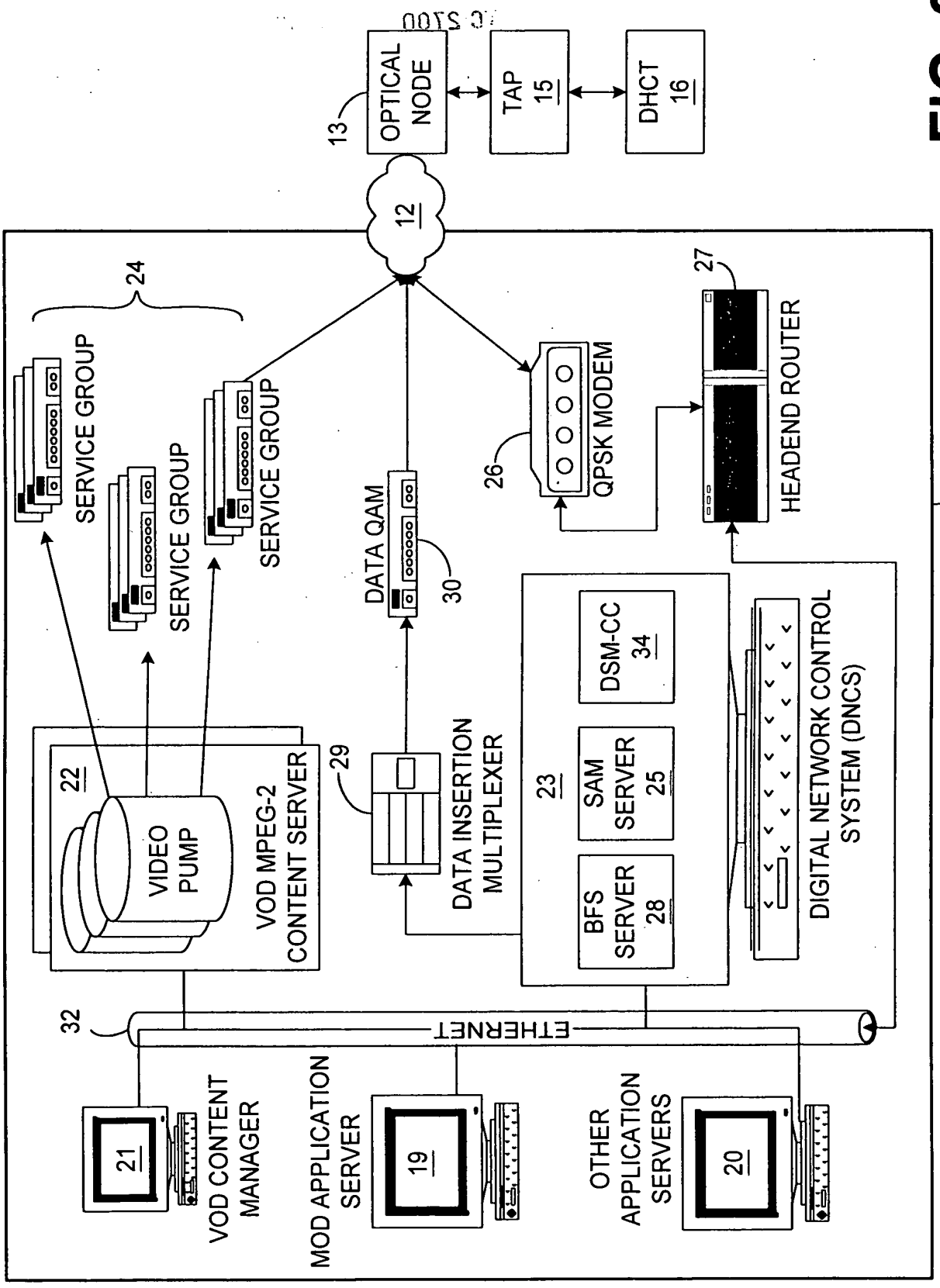

OPTICAL NODE
13
TAP 15
DHCT 16
12
24
SERVICE GROUP
SERVICE GROUP
SERVICE GROUP
DATA QAM
30
26
QPSK MODEM
27
HEADEND ROUTER
11
22
VIDEO PUMP
VOD MPEG-2 CONTENT SERVER
29
DATA INSERTION MULTIPLEXER
23
BFS SERVER 28
SAM SERVER 25
DSM-CC 34
DIGITAL NETWORK CONTROL SYSTEM (DNCS)
32
ETHERNET
21
VOD CONTENT MANAGER
19
MOD APPLICATION SERVER
20
OTHER APPLICATION SERVERS

FIG. 2

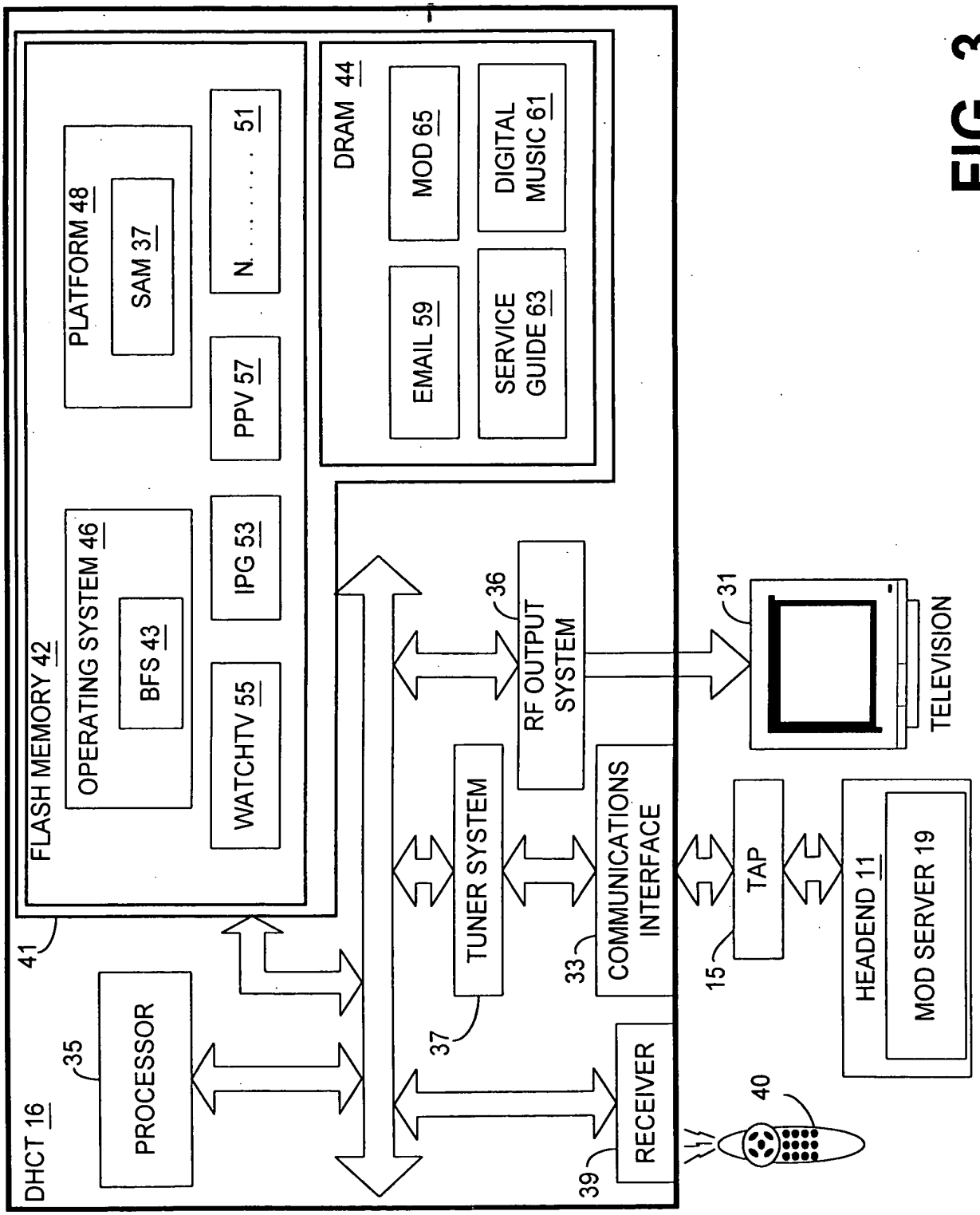

DHCT 16
PROCESSOR
35
41
FLASH MEMORY 42
OPERATING SYSTEM 46
BFS 43
PLATFORM 48
SAM 37
WATCHTV 55
IPG 53
PPV 57
N. . . . . 51
DRAM 44
EMAIL 59
SERVICE GUIDE 63
MOD 65
DIGITAL MUSIC 61
TUNER SYSTEM
37
RECEIVER
39
RF OUTPUT SYSTEM
36
COMMUNICATIONS INTERFACE
33
TAP
15
HEADEND 11
MOD SERVER 19
31
TELEVISION
40

FIG. 3

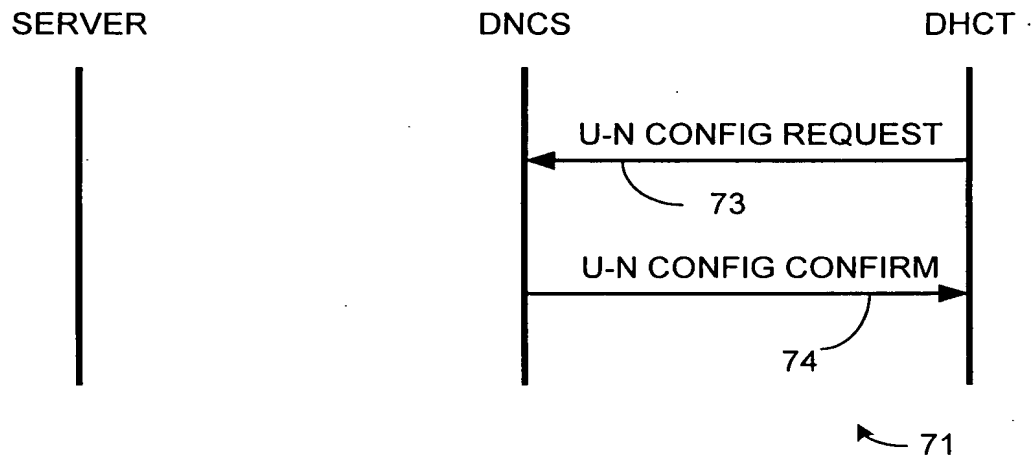

SERVER
DNCS
DHCT
U-N CONFIG REQUEST
73
U-N CONFIG CONFIRM
74
71

FIG. 4A

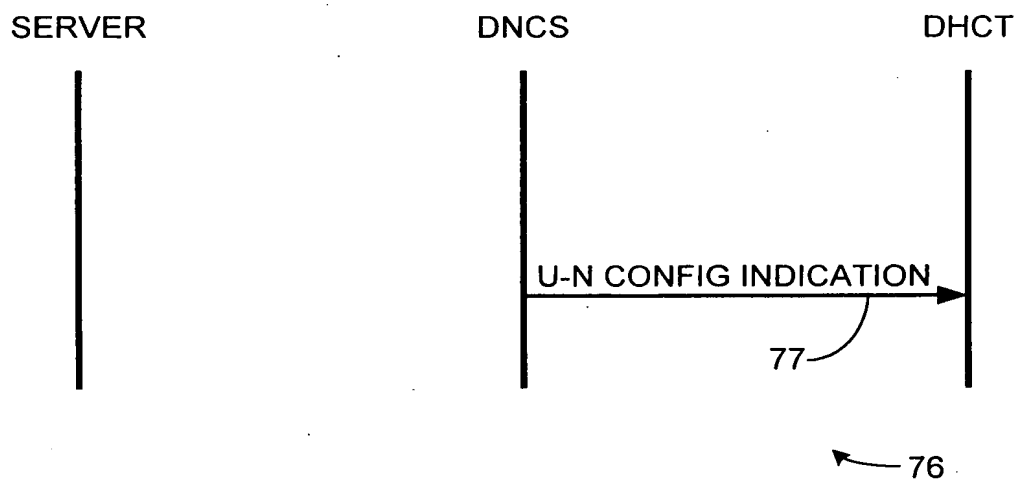

SERVER
DNCS
DHCT
U-N CONFIG INDICATION
77
76

FIG. 4B

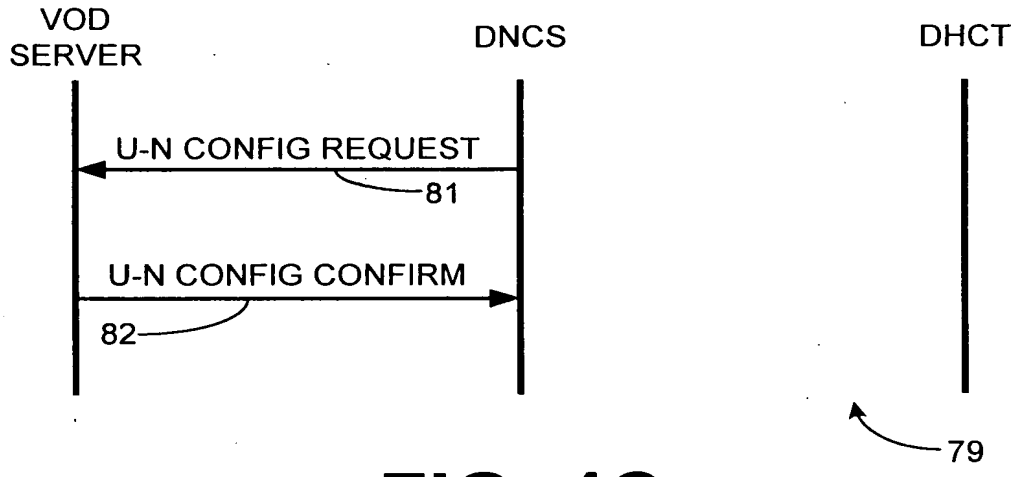

VOD SERVER
DNCS
DHCT
U-N CONFIG REQUEST
81
U-N CONFIG CONFIRM
82
79

FIG. 4C

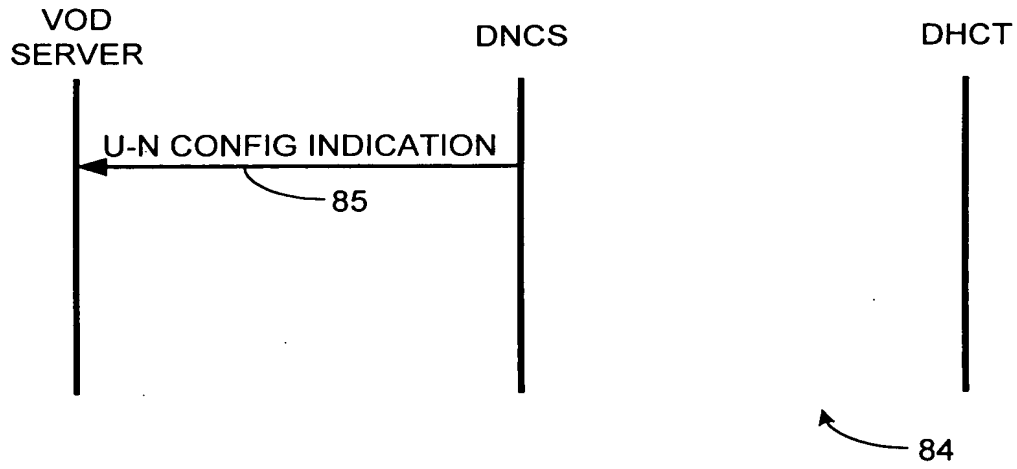

VOD SERVER
DNCS
DHCT
U-N CONFIG INDICATION
85
84

FIG. 4D

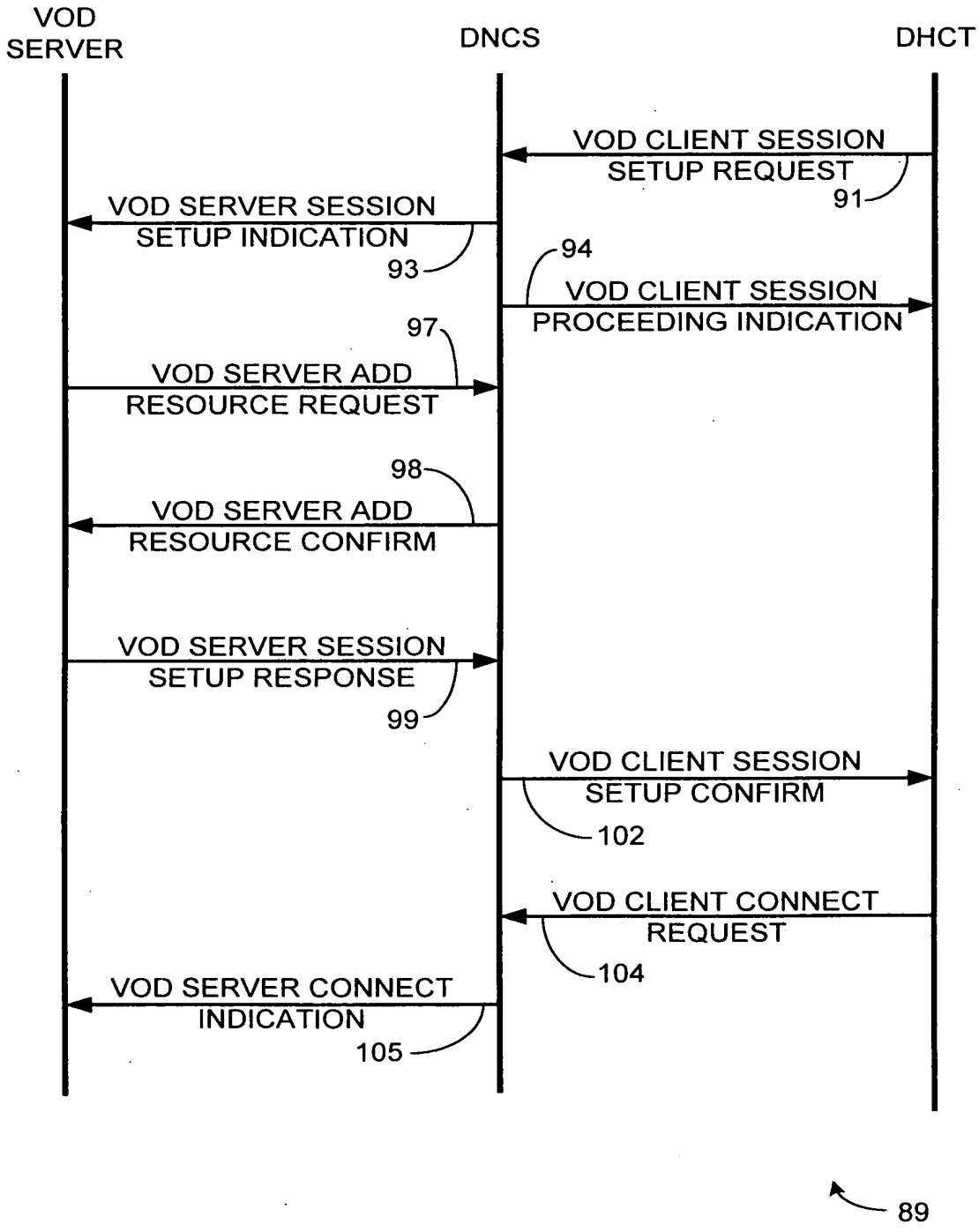

VOD SERVER
DNCS
DHCT
VOD CLIENT SESSION SETUP REQUEST
91
VOD SERVER SESSION SETUP INDICATION
93
94
VOD CLIENT SESSION PROCEEDING INDICATION
97
VOD SERVER ADD RESOURCE REQUEST
98
VOD SERVER ADD RESOURCE CONFIRM
VOD SERVER SESSION SETUP RESPONSE
99
VOD CLIENT SESSION SETUP CONFIRM
102
VOD CLIENT CONNECT REQUEST
104
VOD SERVER CONNECT INDICATION
105
89

FIG. 4E

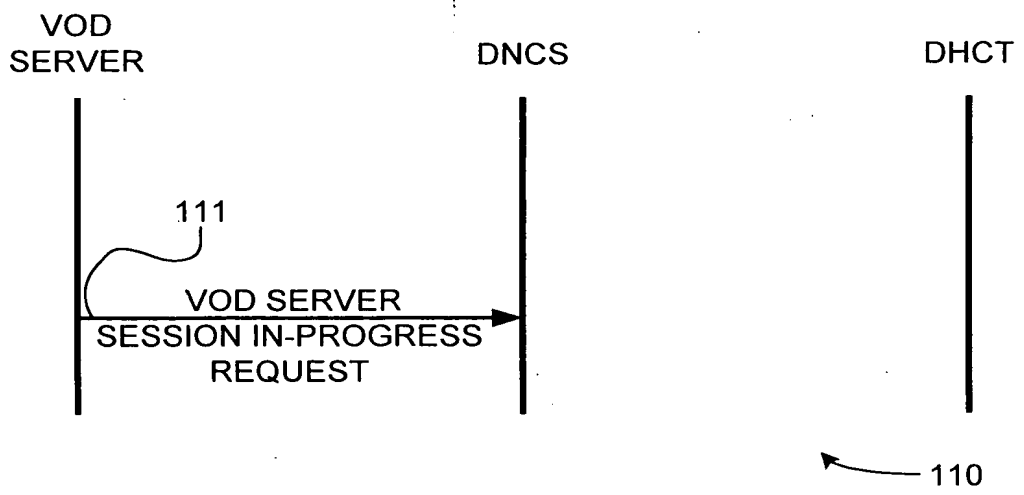

VOD
SERVER
DNCS
DHCT
111
VOD SERVER
SESSION IN-PROGRESS
REQUEST
110

FIG. 4F

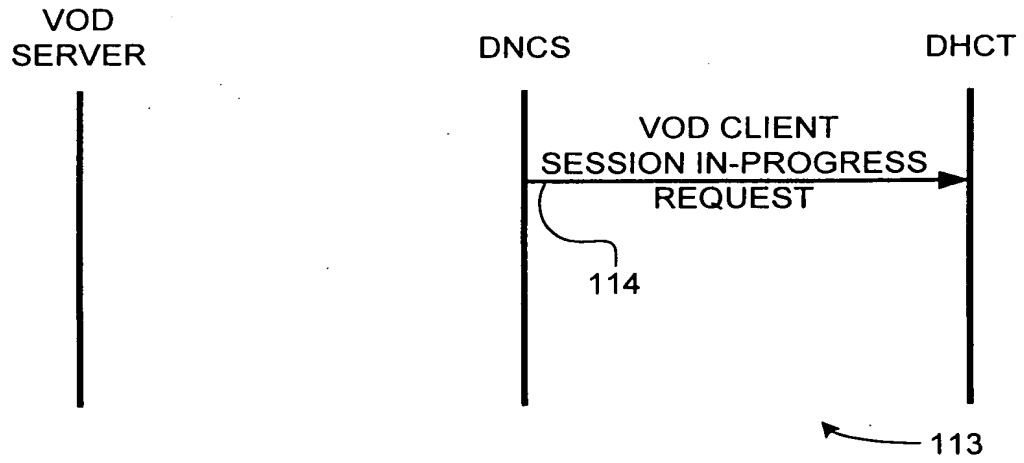

VOD
SERVER
DNCS
DHCT
VOD CLIENT
SESSION IN-PROGRESS
REQUEST
114
113

FIG. 4G

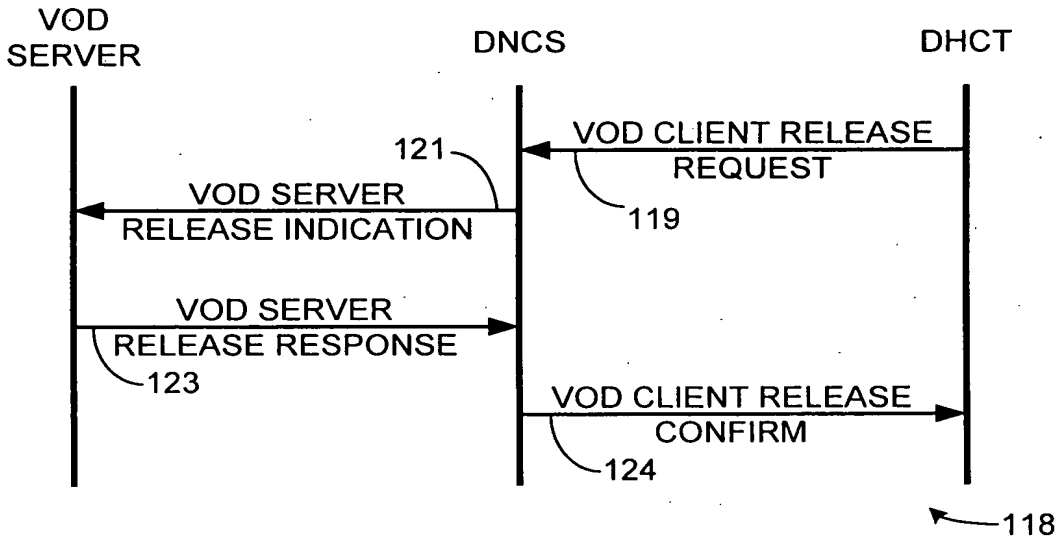

VOD SERVER
DNCS
DHCT
VOD CLIENT RELEASE REQUEST
121
VOD SERVER RELEASE INDICATION
119
VOD SERVER RELEASE RESPONSE
123
VOD CLIENT RELEASE CONFIRM
124
118

FIG. 4H

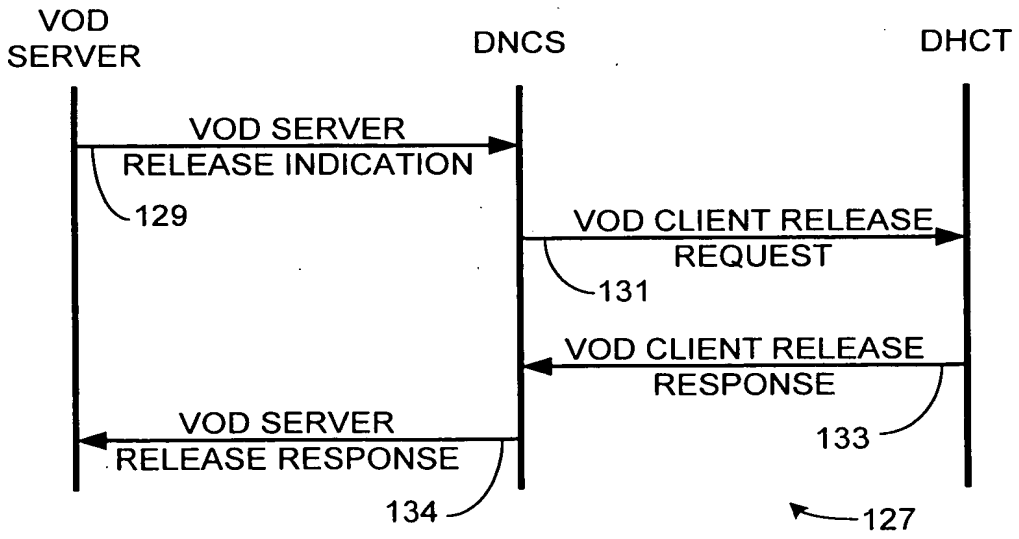

VOD SERVER
DNCS
DHCT
VOD SERVER RELEASE INDICATION
129
VOD CLIENT RELEASE REQUEST
131
VOD CLIENT RELEASE RESPONSE
133
VOD SERVER RELEASE RESPONSE
134
127

FIG. 4I

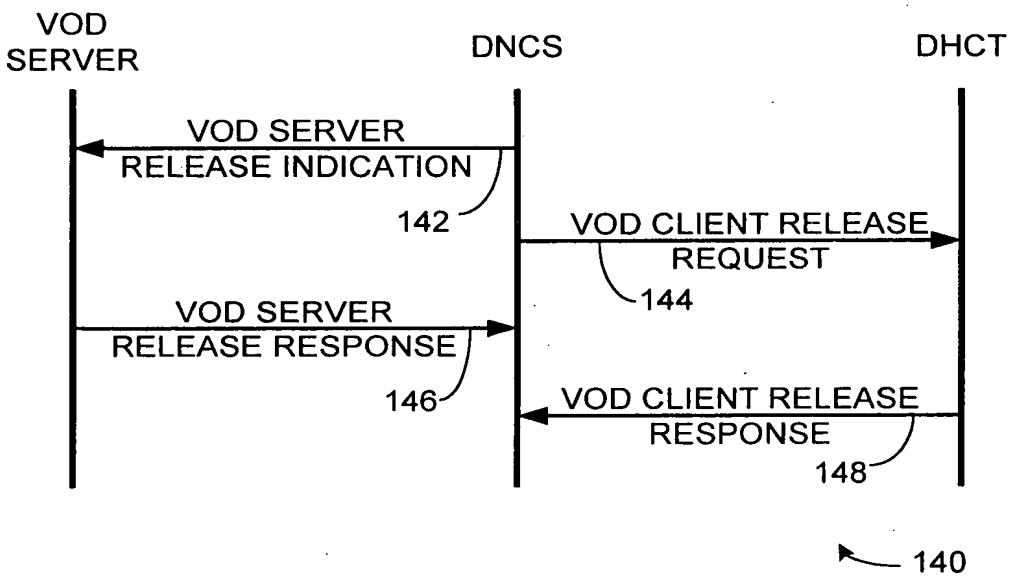

VOD SERVER
DNCS
DHCT
VOD SERVER RELEASE INDICATION
142
VOD CLIENT RELEASE REQUEST
144
VOD SERVER RELEASE RESPONSE
146
VOD CLIENT RELEASE RESPONSE
148
140

FIG. 4J

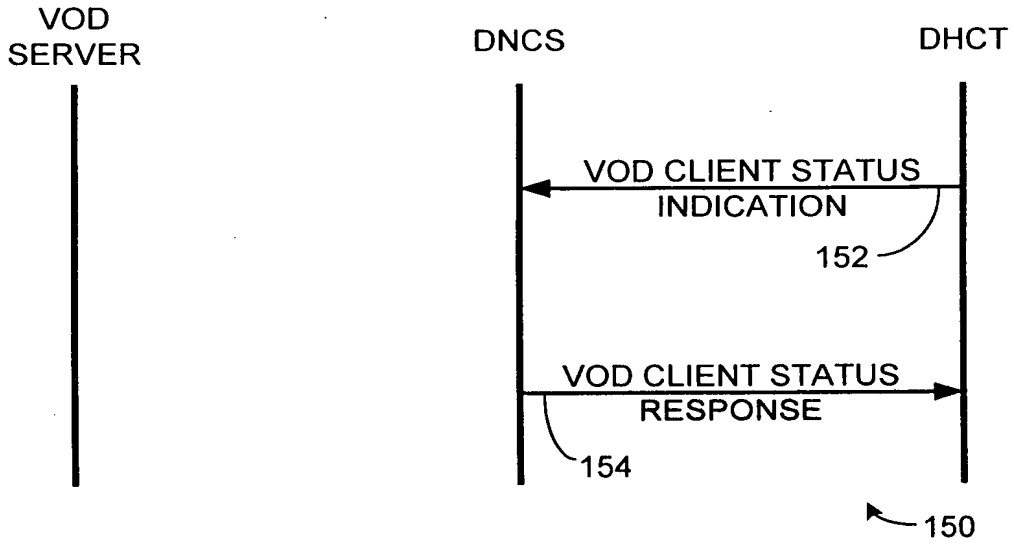

VOD
SERVER
DNCS
DHCT
VOD CLIENT STATUS
INDICATION
152
VOD CLIENT STATUS
RESPONSE
154
150

FIG. 4K

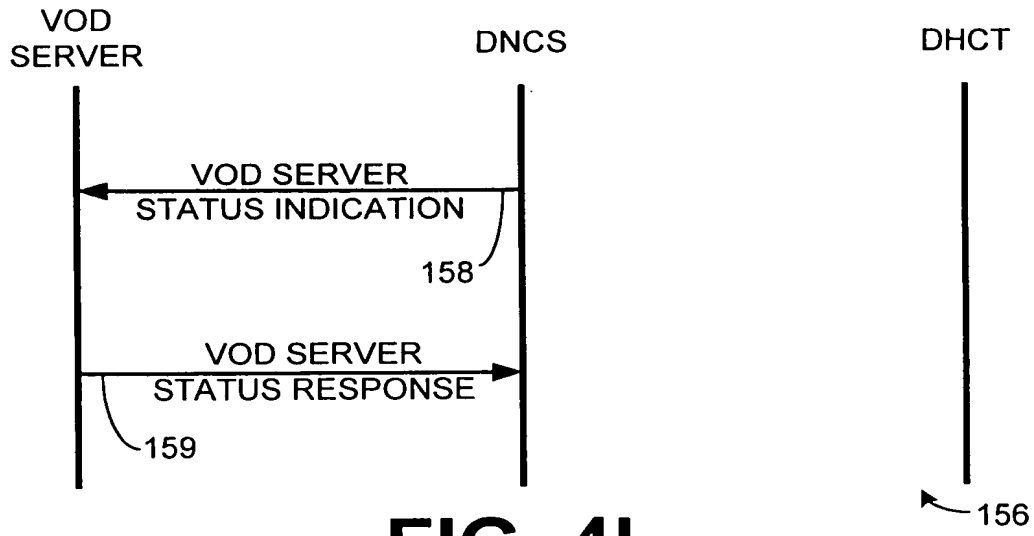
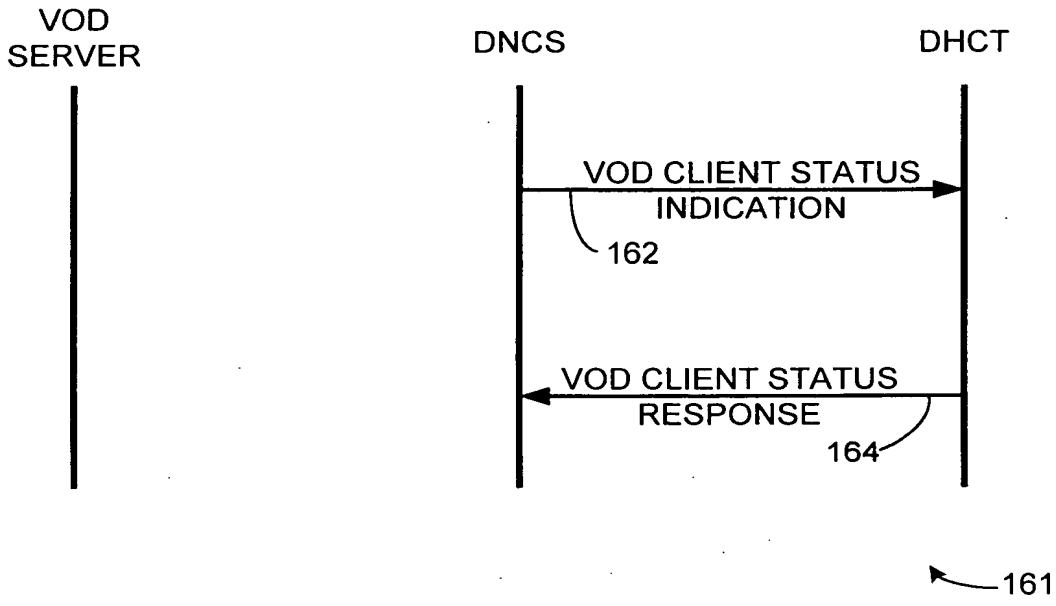

VOD
SERVER
DNCS
DHCT
VOD SERVER
STATUS INDICATION
158
VOD SERVER
STATUS RESPONSE
159
156

FIG. 4L


VOD
SERVER
DNCS
DHCT
VOD CLIENT STATUS
INDICATION
162
VOD CLIENT STATUS
RESPONSE
164
161

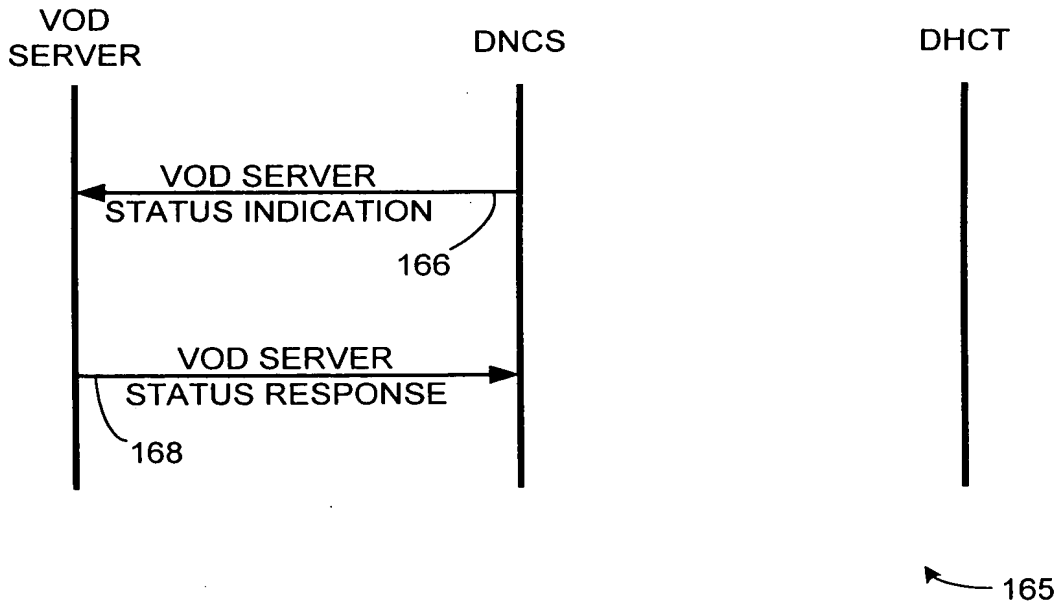

VOD
SERVER
DNCS
DHCT
VOD SERVER
STATUS INDICATION
166
VOD SERVER
STATUS RESPONSE
168
165

FIG. 4M

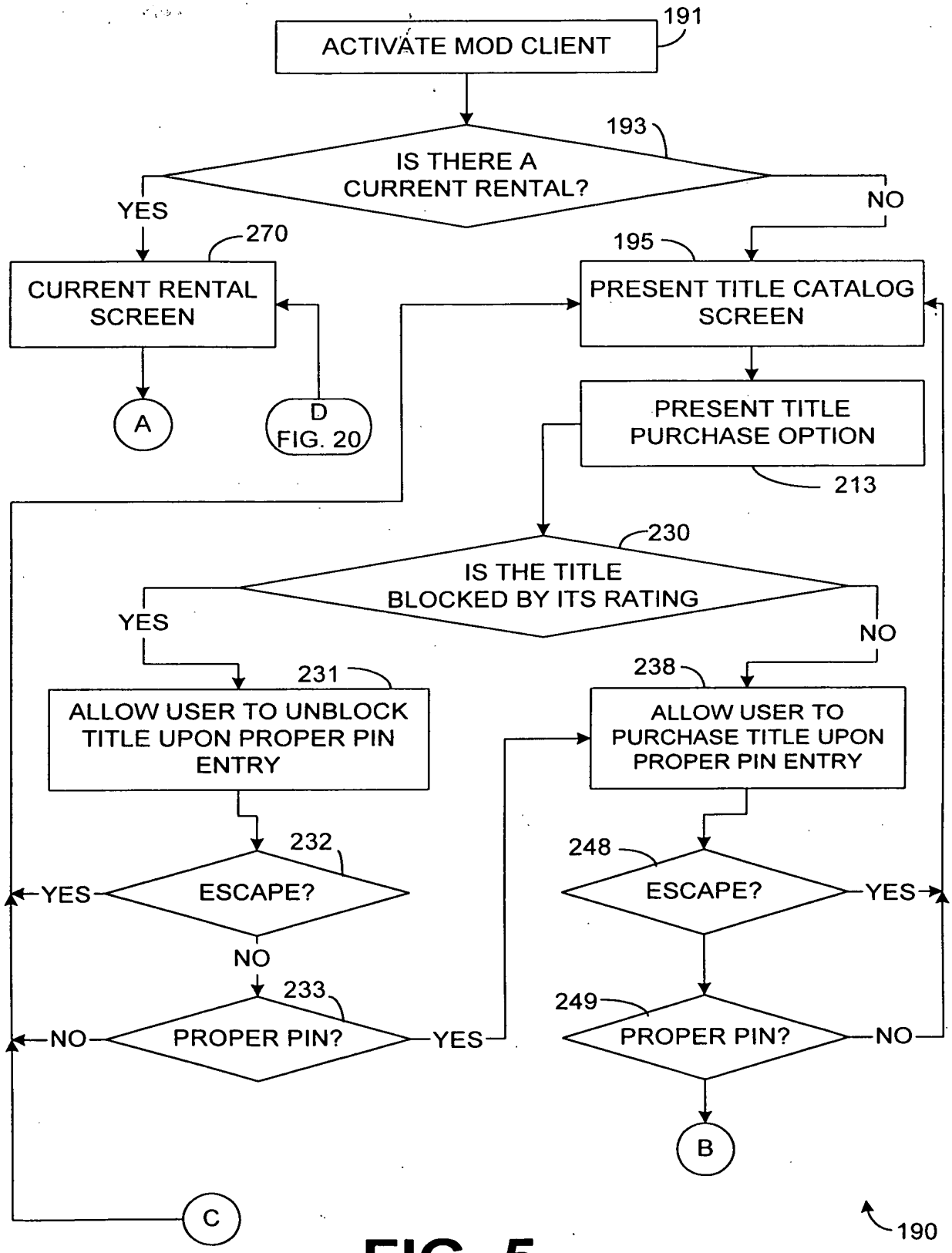

ACTIVATE MOD CLIENT
191
IS THERE A CURRENT RENTAL?
193
YES
NO
CURRENT RENTAL SCREEN
270
PRESENT TITLE CATALOG SCREEN
195
A
D FIG. 20
PRESENT TITLE PURCHASE OPTION
213
IS THE TITLE BLOCKED BY ITS RATING
230
YES
NO
ALLOW USER TO UNBLOCK TITLE UPON PROPER PIN ENTRY
231
ALLOW USER TO PURCHASE TITLE UPON PROPER PIN ENTRY
238
ESCAPE?
232
YES
NO
PROPER PIN?
233
NO
YES
ESCAPE?
248
YES
PROPER PIN?
249
NO
B
C
190

FIG. 5

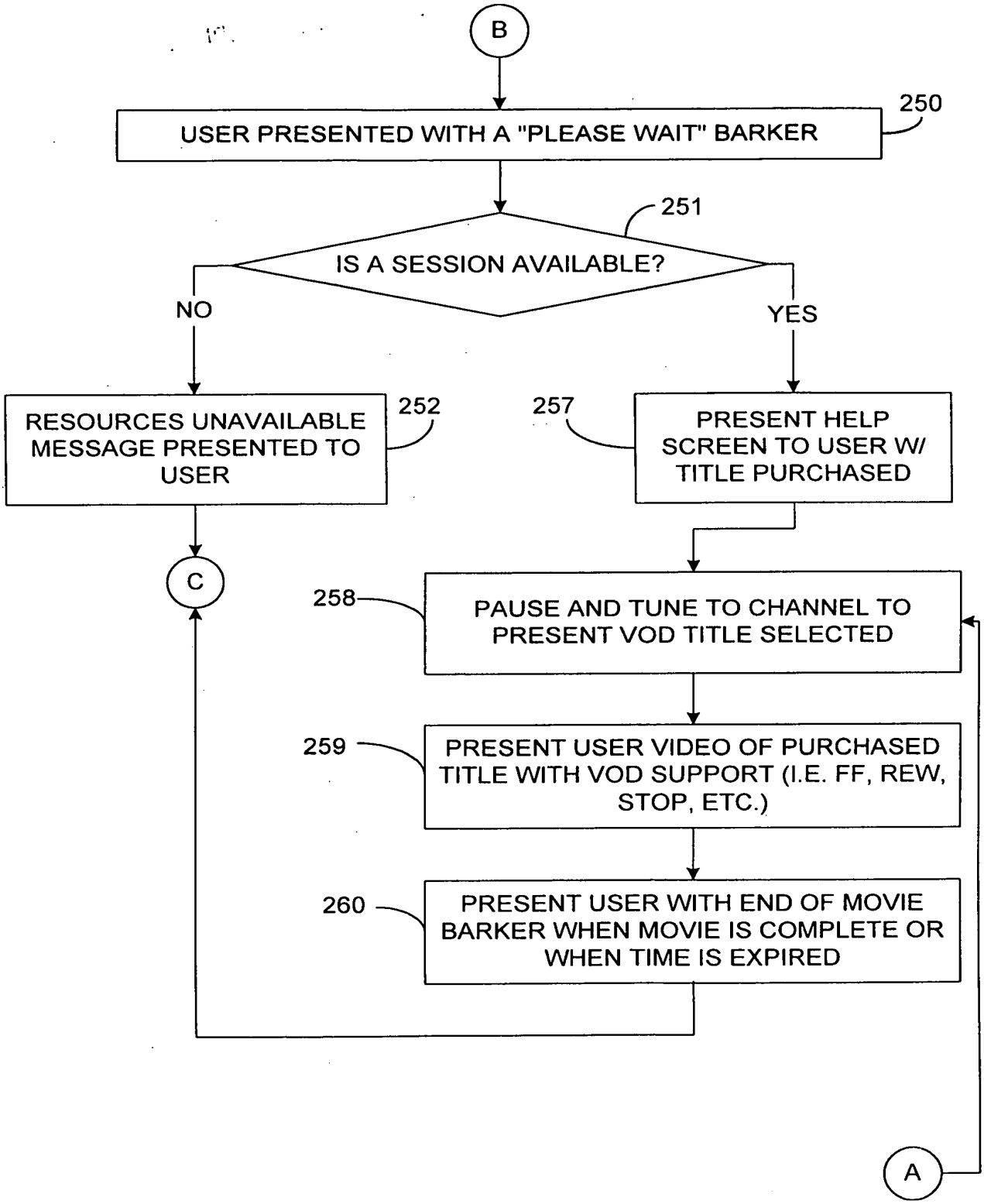

B
USER PRESENTED WITH A "PLEASE WAIT" BARKER
250
IS A SESSION AVAILABLE?
251
NO
YES
RESOURCES UNAVAILABLE MESSAGE PRESENTED TO USER
252
257
PRESENT HELP SCREEN TO USER W/ TITLE PURCHASED
C
258
PAUSE AND TUNE TO CHANNEL TO PRESENT VOD TITLE SELECTED
259
PRESENT USER VIDEO OF PURCHASED TITLE WITH VOD SUPPORT (I.E. FF, REW, STOP, ETC.)
260
PRESENT USER WITH END OF MOVIE BARKER WHEN MOVIE IS COMPLETE OR WHEN TIME IS EXPIRED
A

FIG. 6

190

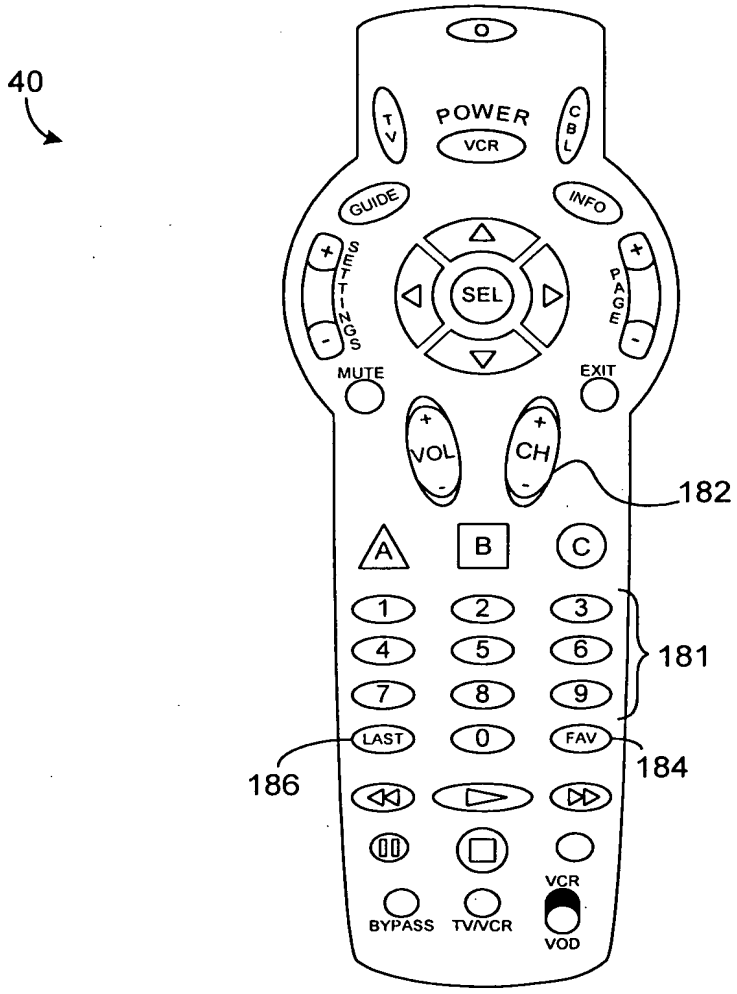

40
POWER
TV
VCR
CBL
GUIDE
INFO
SETTINGS
SEL
PAGE
MUTE
EXIT
VOL
CH
182
A
B
C
1
2
3
4
5
6
181
7
8
9
LAST
0
FAV
186
184
VCR
BYPASS
TV/VCR
VOD

FIG. 7

MOD TITLE CATALOG SCREEN AREAS

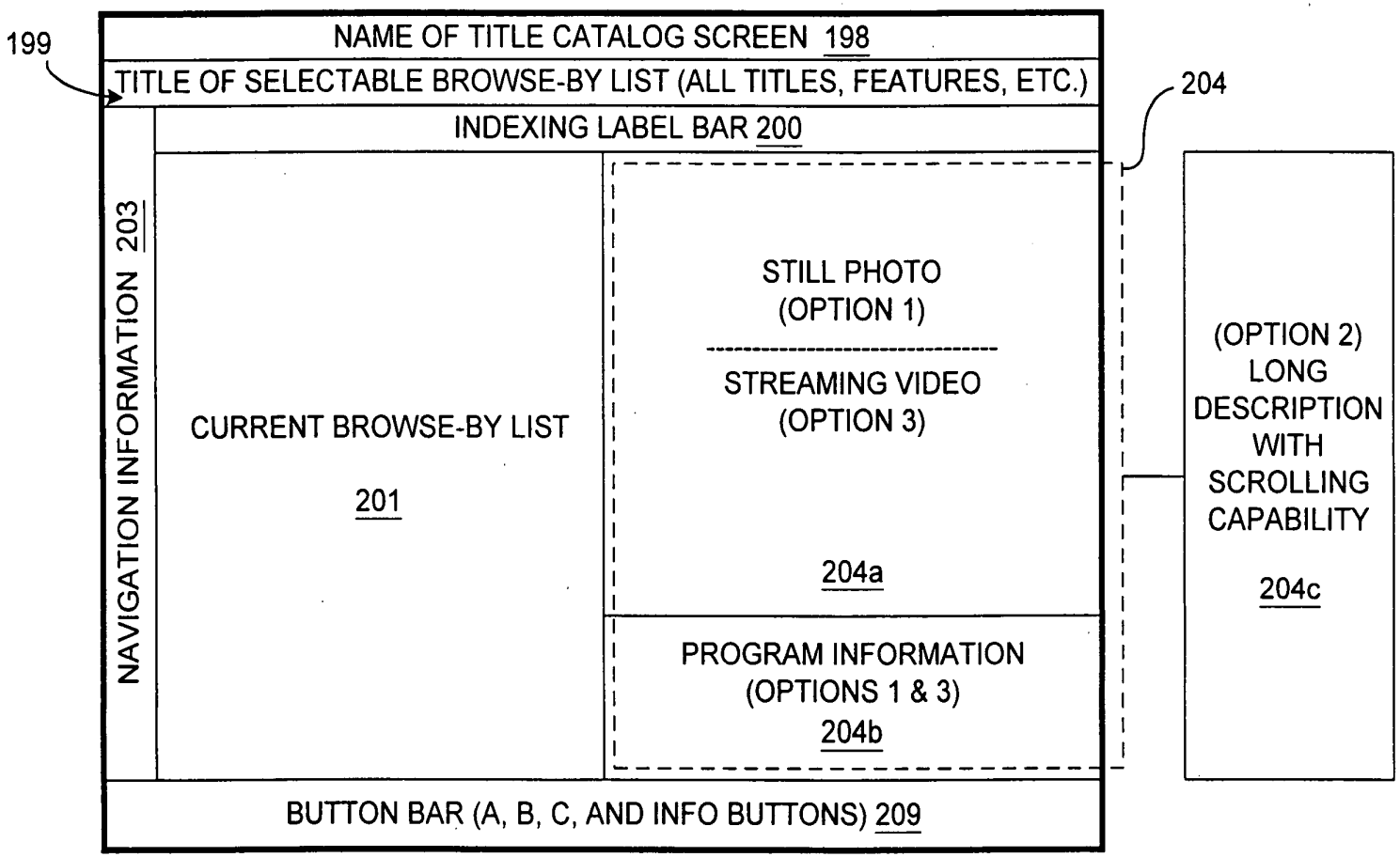



FIG. 8A

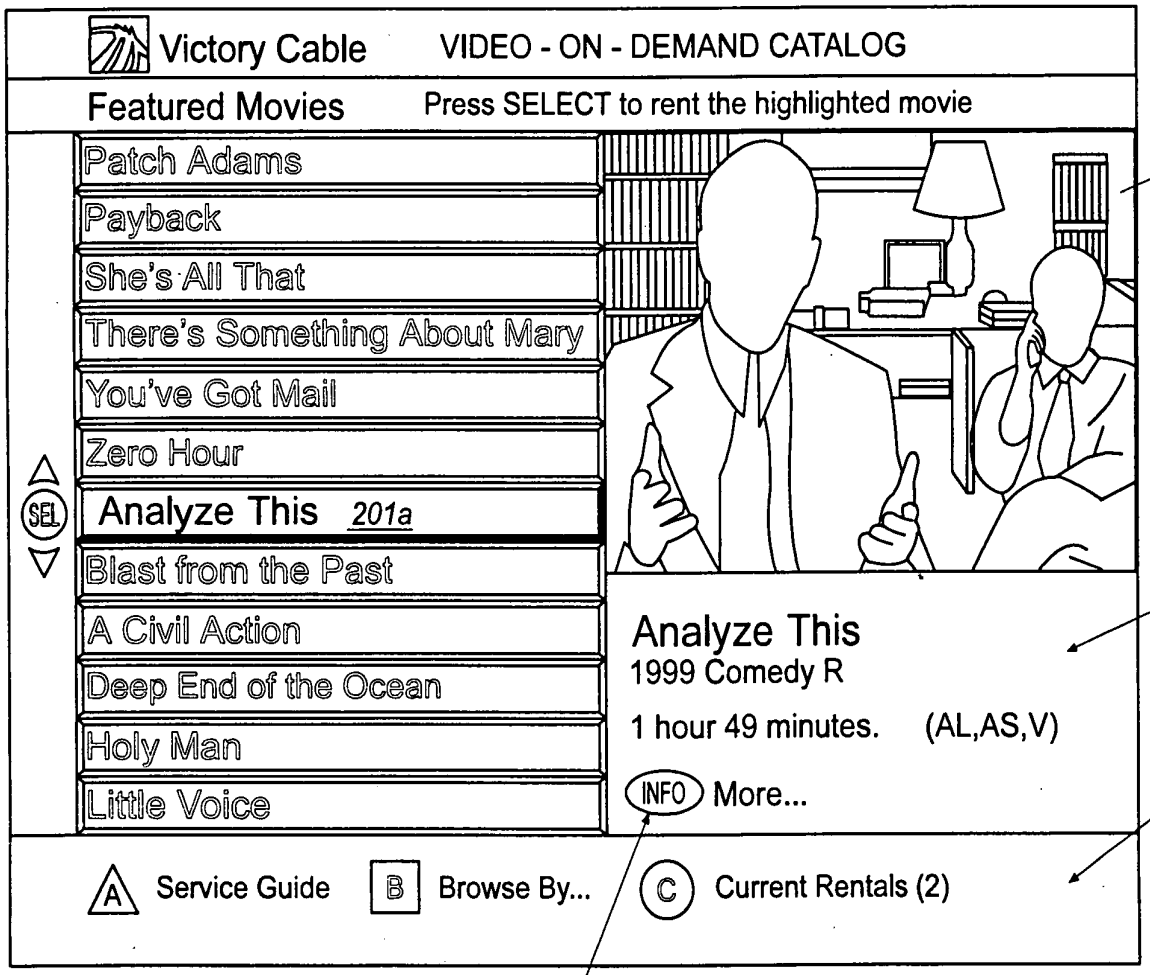

Victory Cable
VIDEO - ON - DEMAND CATALOG
Featured Movies
Press SELECT to rent the highlighted movie
Patch Adams
Payback
She's All That
There's Something About Mary
You've Got Mail
Zero Hour
SEL
Analyze This 201a
Blast from the Past
A Civil Action
Deep End of the Ocean
Holy Man
Little Voice
204a
Analyze This
1999 Comedy R
1 hour 49 minutes. (AL,AS,V)
INFO More...
204b
209
A Service Guide
B Browse By...
C Current Rentals (2)
210
197

Fig. 8B

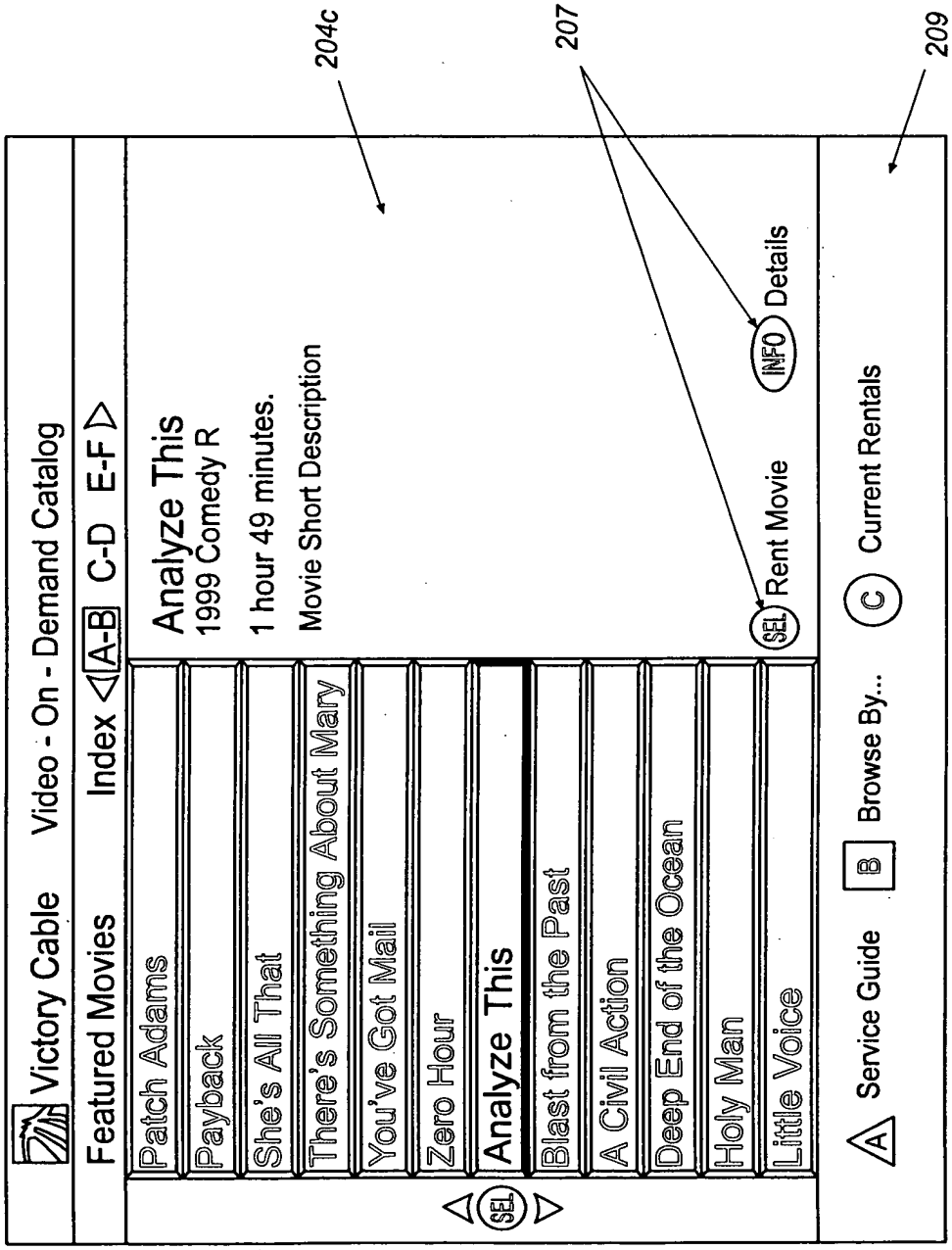

Victory Cable
Video - On - Demand Catalog
Featured Movies
Index
A-B
C-D
E-F
Patch Adams
Payback
She's All That
There's Something About Mary
You've Got Mail
Zero Hour
Analyze This
Blast from the Past
A Civil Action
Deep End of the Ocean
Holy Man
Little Voice
SEL
Analyze This
1999 Comedy R
1 hour 49 minutes.
Movie Short Description
SEL
Rent Movie
INFO
Details
A
Service Guide
B
Browse By...
C
Current Rentals
204c
207
209
197

Fig. 8C

TITLE DESCRIPTION
(POPS UP WHEN A KEY IS PRESSED FROM THE VOD TITLE CATALOG SCREEN)

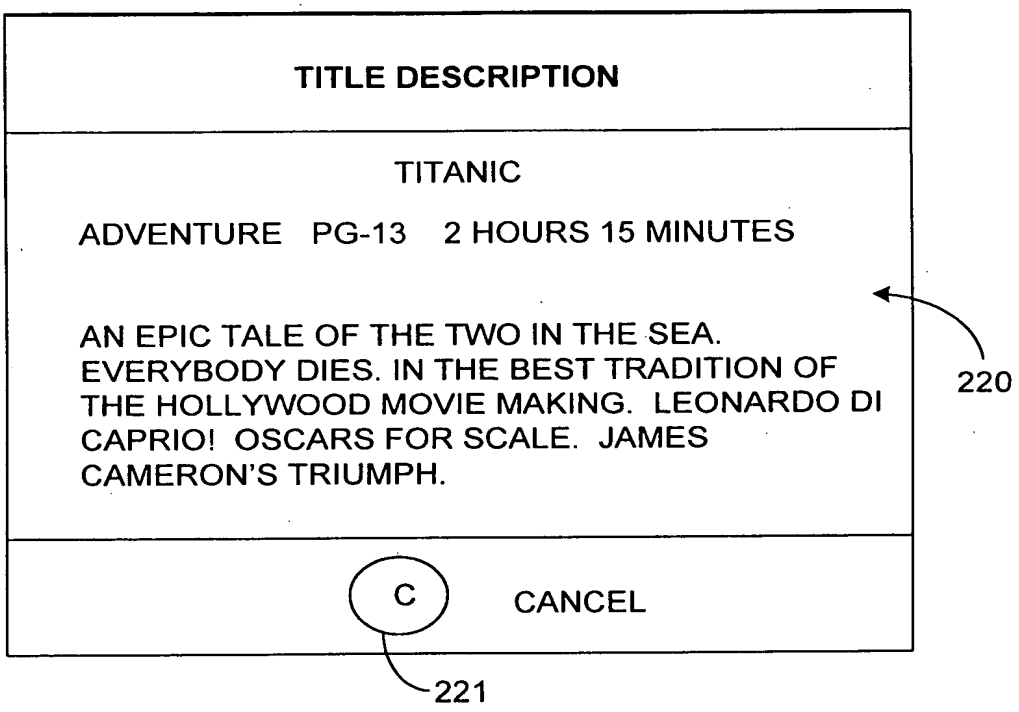



FIG. 8D

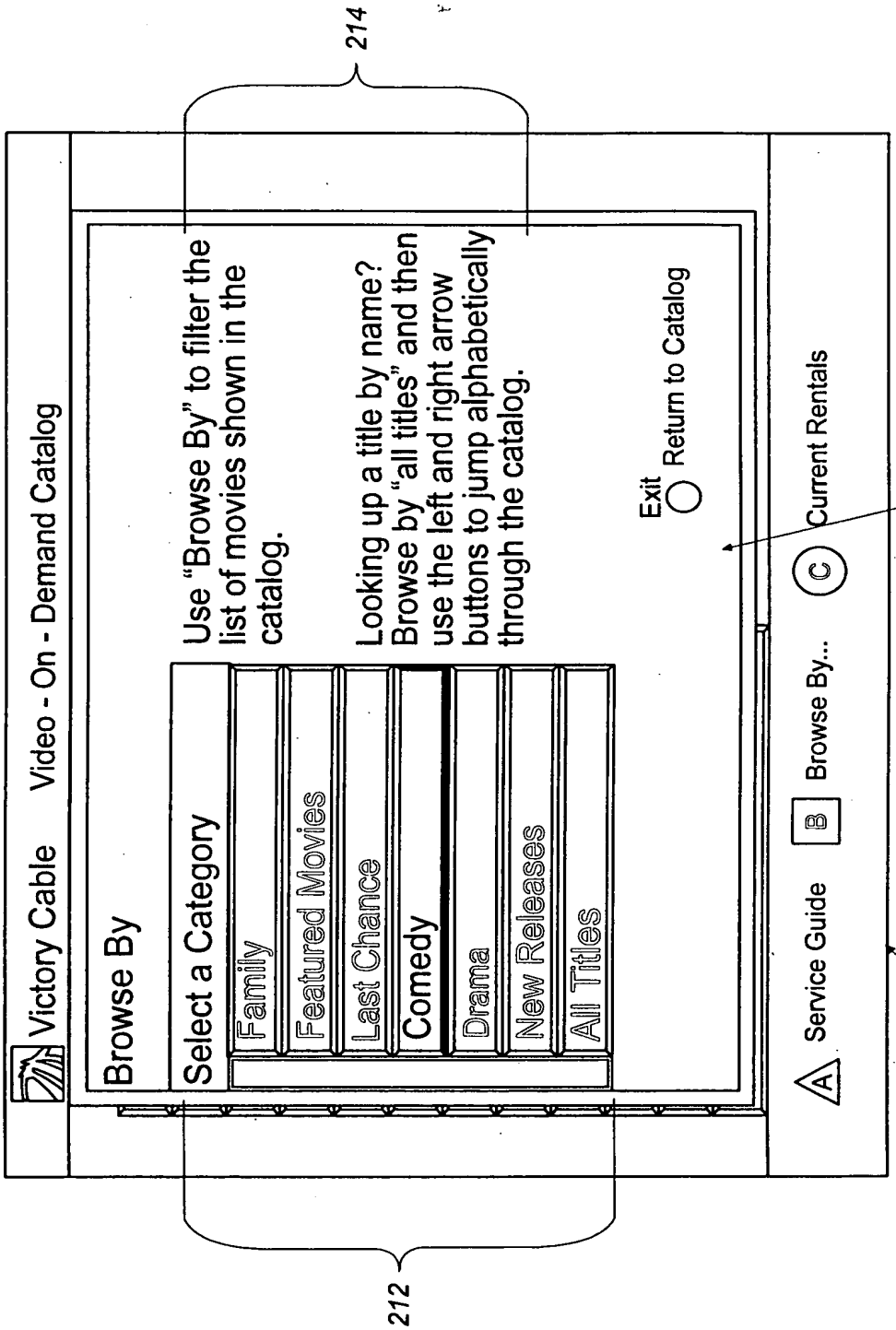

214
Victory Cable
Video - On - Demand Catalog
Browse By
Select a Category
Family
Featured Movies
Last Chance
Comedy
Drama
New Releases
All Titles
Use "Browse By" to filter the list of movies shown in the catalog.
Looking up a title by name? Browse by "all titles" and then use the left and right arrow buttons to jump alphabetically through the catalog.
Exit
Return to Catalog
211
A Service Guide
B Browse By...
C Current Rentals
197
212

Fig. 9

RENTAL OPTION (POP-UP WINDOW)

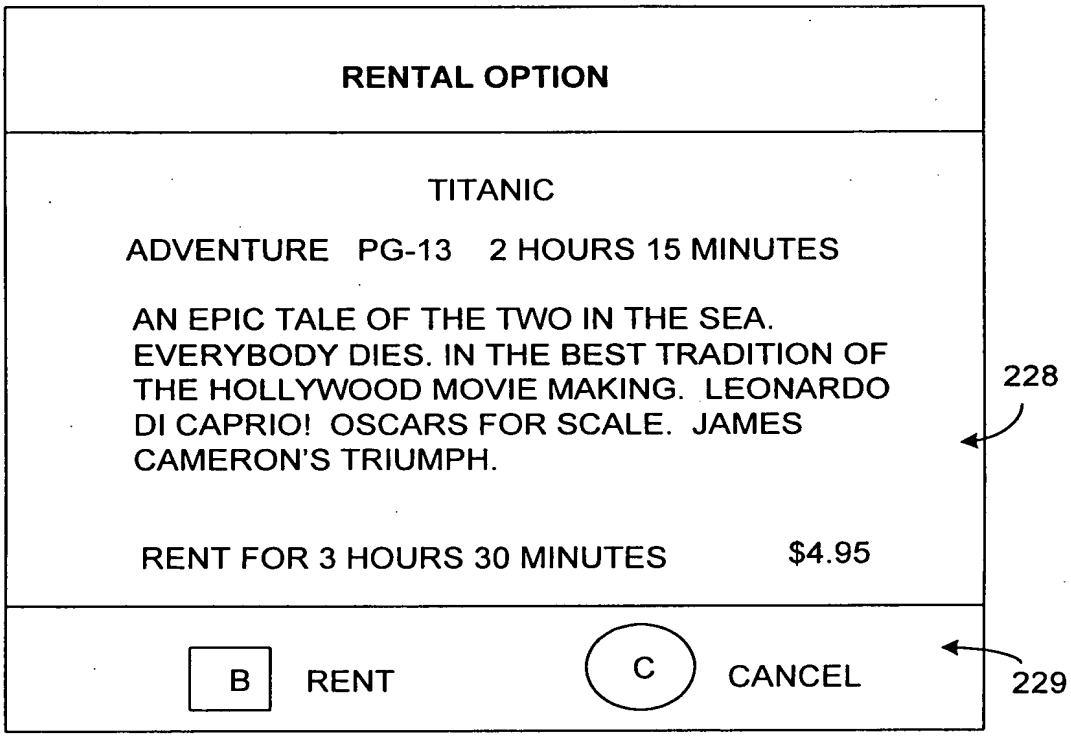



FIG. 10

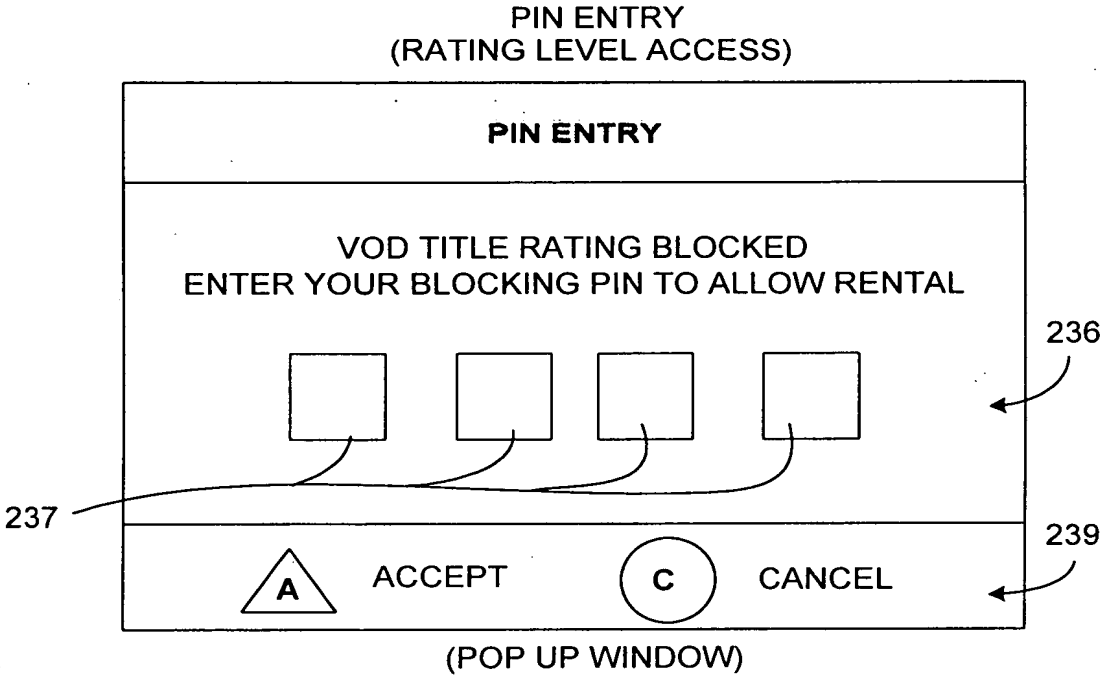

PIN ENTRY
(RATING LEVEL ACCESS)
PIN ENTRY
VOD TITLE RATING BLOCKED
ENTER YOUR BLOCKING PIN TO ALLOW RENTAL
236
237
239
A
ACCEPT
C
CANCEL
(POP UP WINDOW)
231

FIG. 11

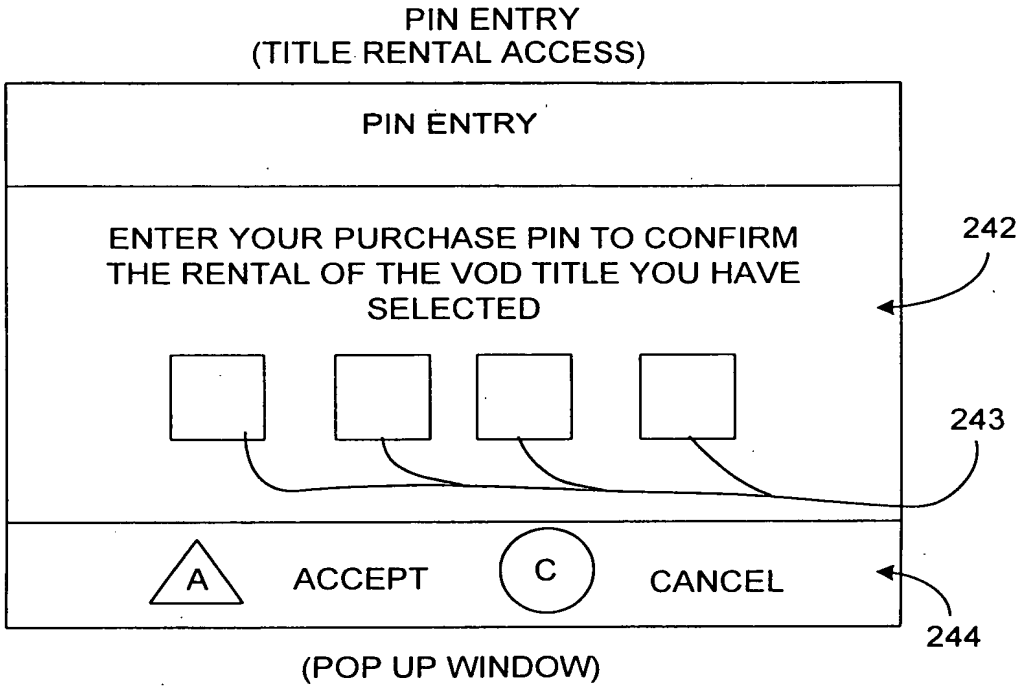

PIN ENTRY
(TITLE RENTAL ACCESS)
PIN ENTRY
ENTER YOUR PURCHASE PIN TO CONFIRM THE RENTAL OF THE VOD TITLE YOU HAVE SELECTED
242
243
A
ACCEPT
C
CANCEL
244
(POP UP WINDOW)
240

FIG. 12

PLEASE WAIT BARKER
(POP-UP WINDOW)

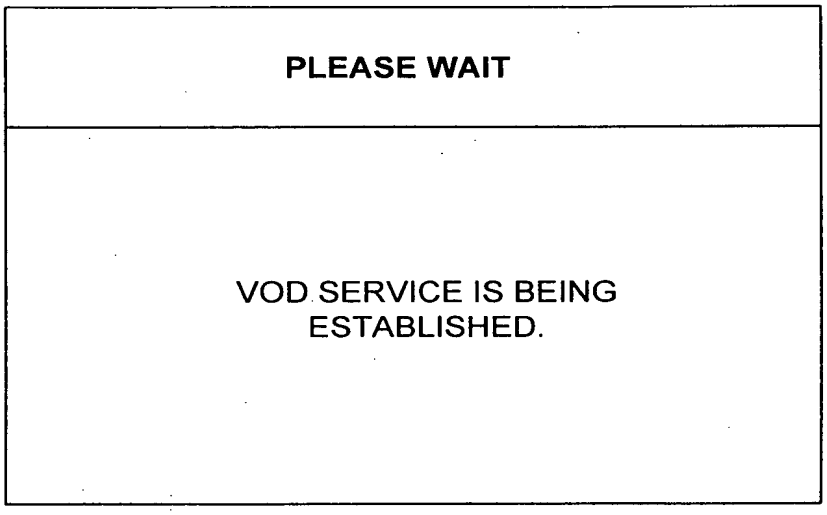



FIG. 13

VOD SERVICE
UNAVAILABLE (POP-UP WINDOW)

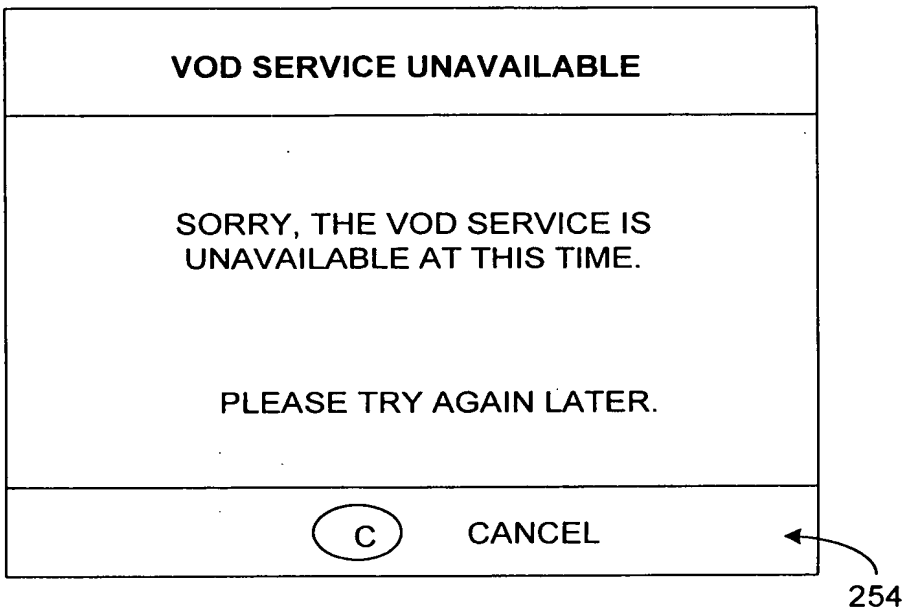
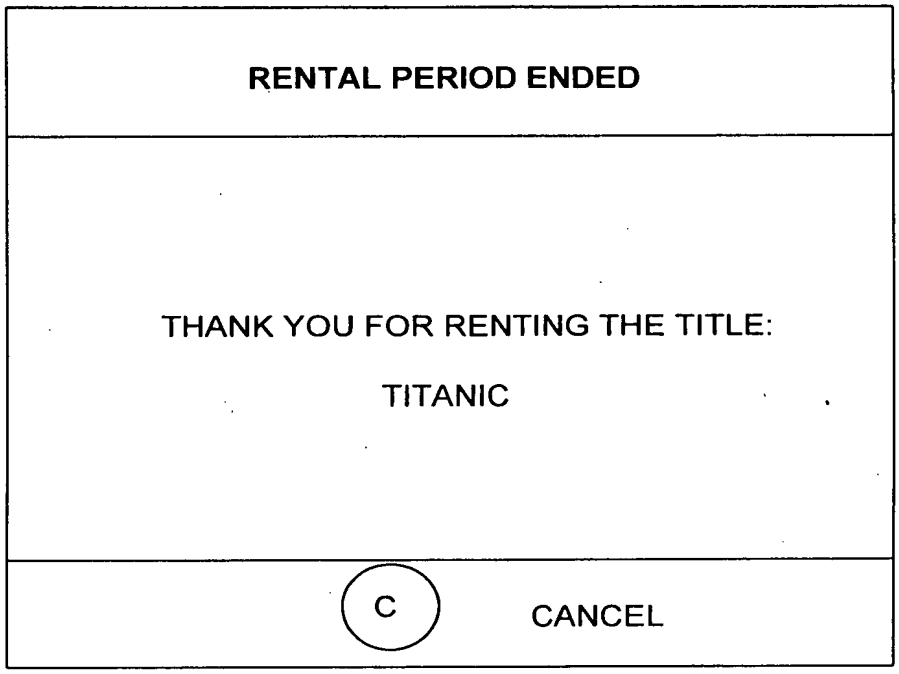



FIG. 14

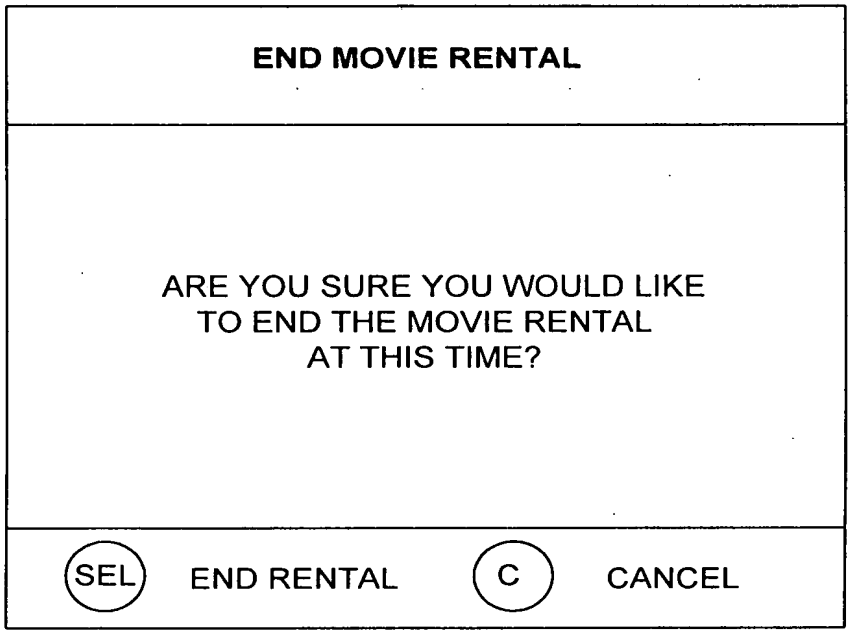
RENTAL PERIOD ENDED (POP-UP WINDOW)




260

FIG. 15

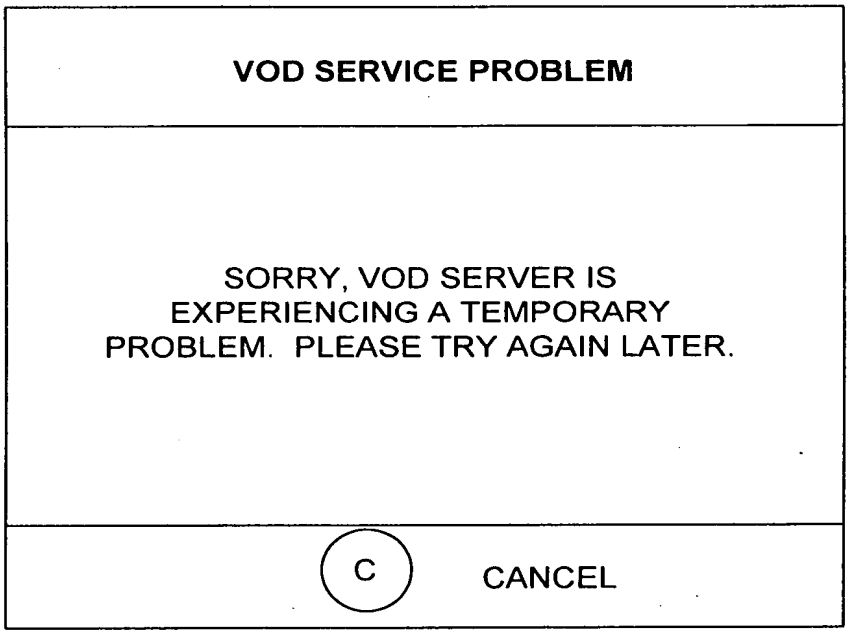
END MOVIE RENTAL (POP-UP WINDOW)




264

FIG. 16

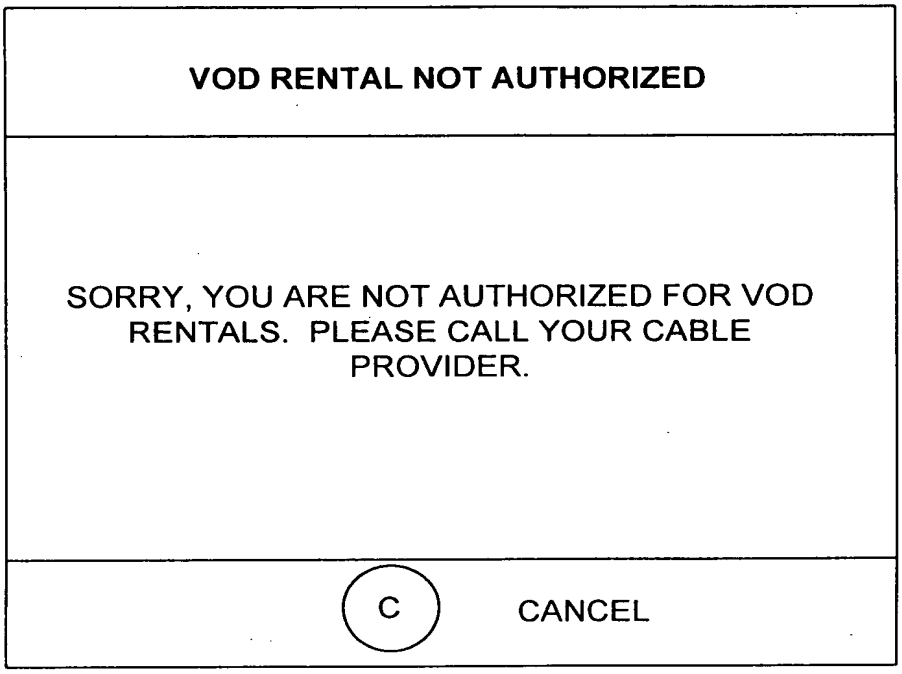
VOD SERVICE PROBLEM (POP-UP WINDOW)




265

FIG. 17

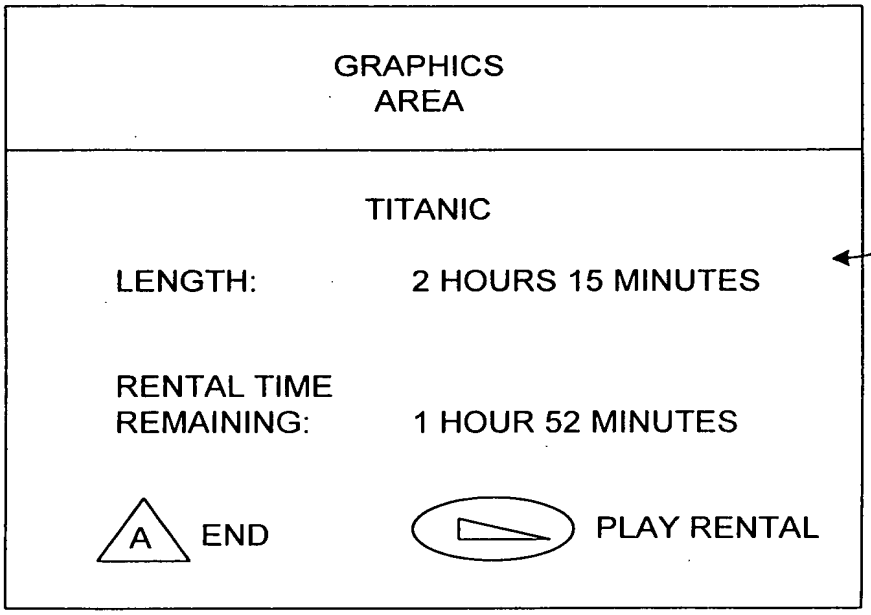
VOD NOT AUTHORIZED
(POP-UP WINDOW)




267

FIG. 18

VOD CURRENT RENTAL SCREEN




270

FIG. 19A

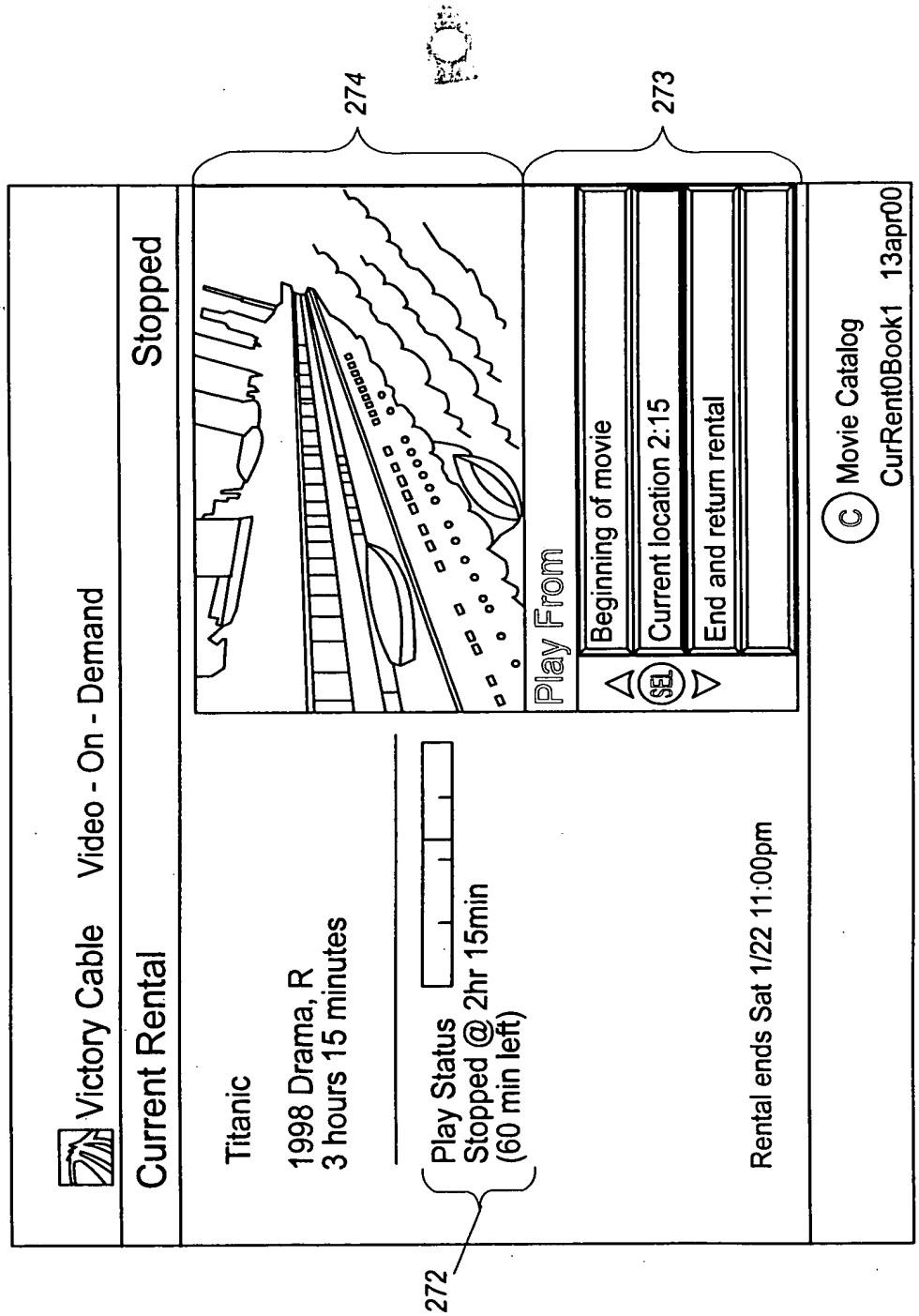

Victory Cable Video - On - Demand
Current Rental
Stopped
Titanic
1998 Drama, R
3 hours 15 minutes
Play Status
Stopped @ 2hr 15min
(60 min left)
Rental ends Sat 1/22 11:00pm
Play From
Beginning of movie
Current location 2:15
End and return rental
SEL
Movie Catalog
CurRent0Book1 13apr00
272
273
274
270

Fig. 19B

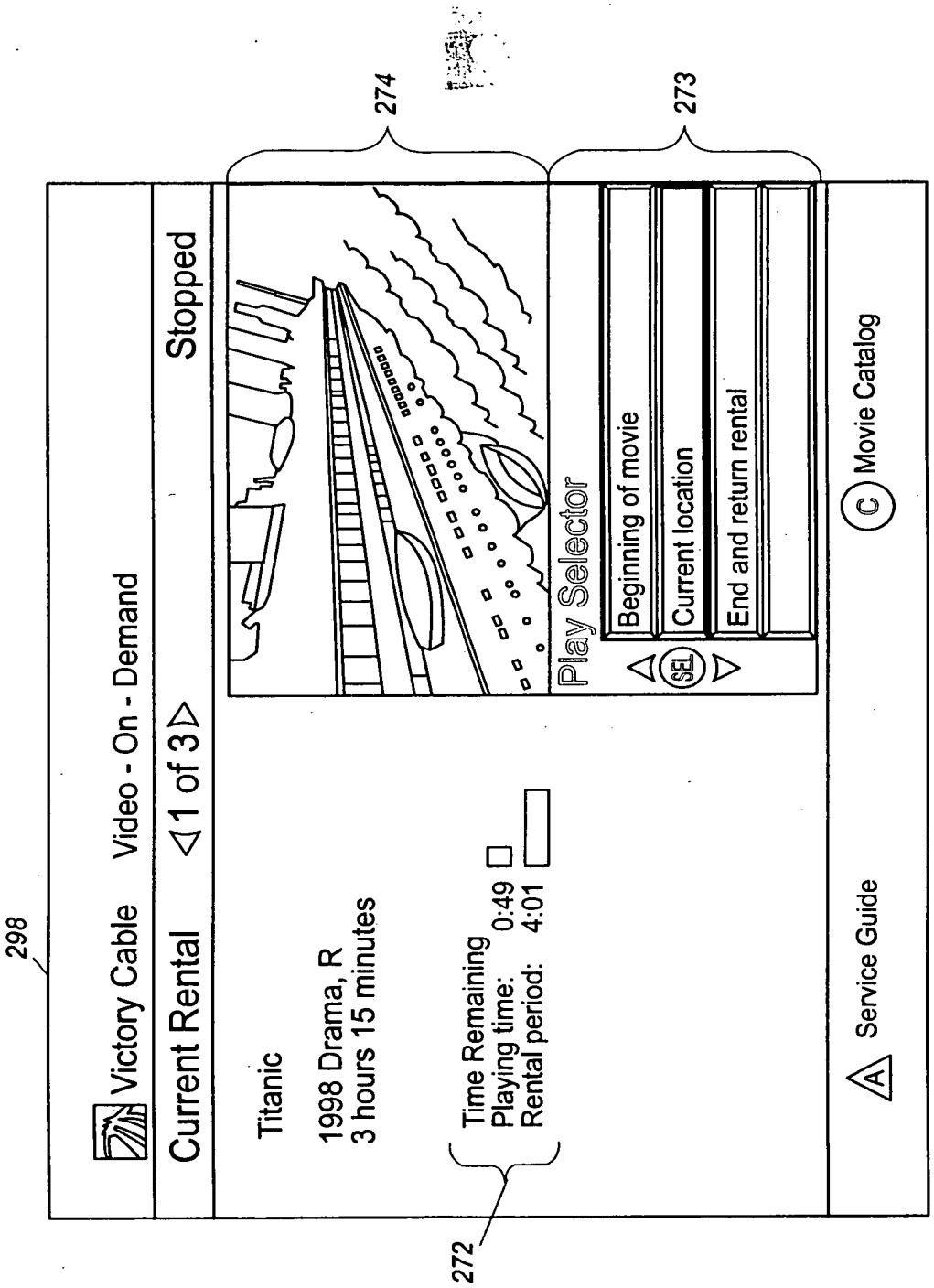

298
Victory Cable
Video - On - Demand
Current Rental
1 of 3
Stopped
Titanic
1998 Drama, R
3 hours 15 minutes
Time Remaining
Playing time: 0:49
Rental period: 4:01
272
274
273
Play Selector
Beginning of movie
Current location
End and return rental
SEL
A
Service Guide
C
Movie Catalog
270

Fig. 19C

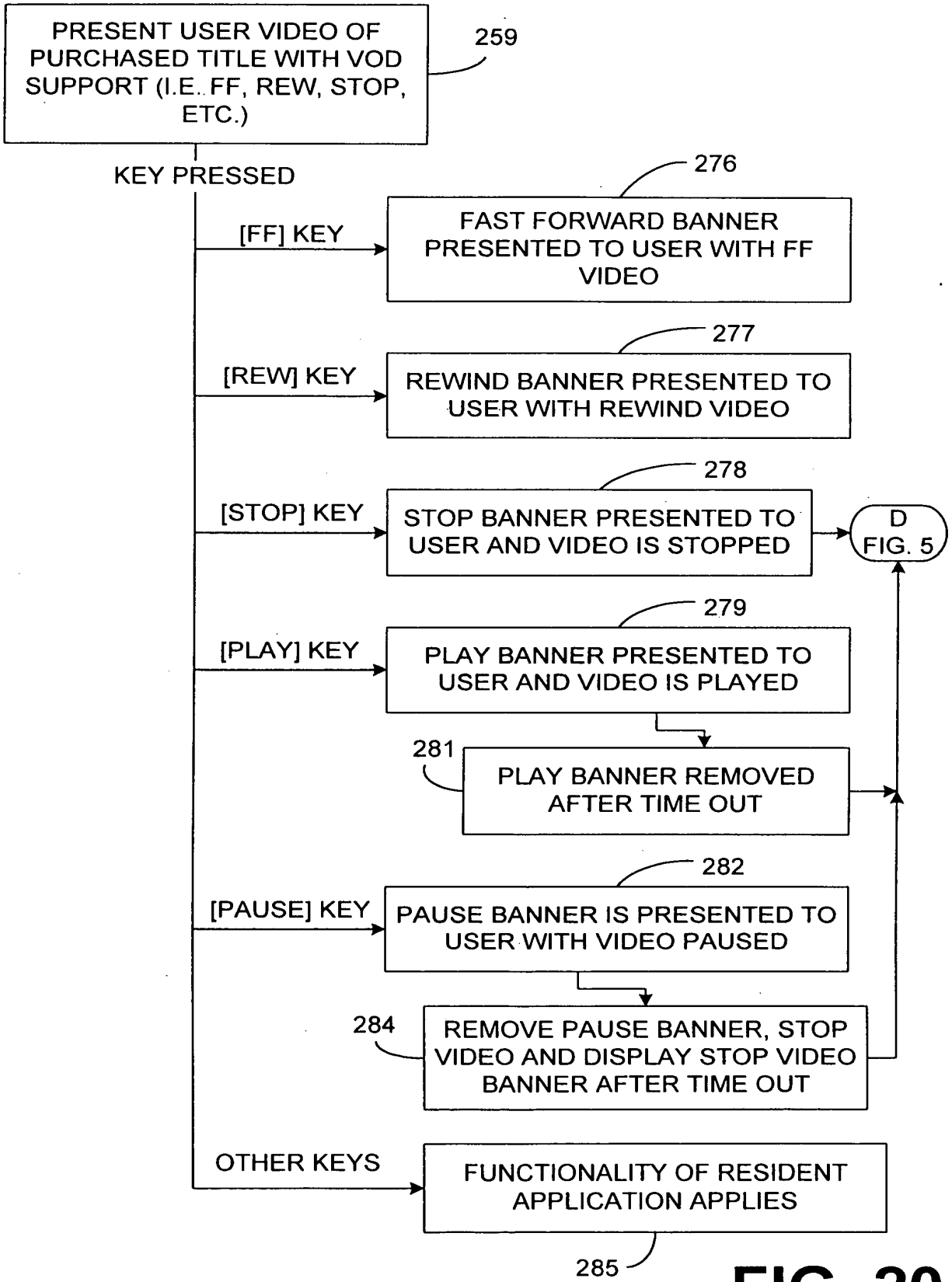

PRESENT USER VIDEO OF PURCHASED TITLE WITH VOD SUPPORT (I.E. FF, REW, STOP, ETC.)
259
KEY PRESSED
[FF] KEY
276
FAST FORWARD BANNER PRESENTED TO USER WITH FF VIDEO
[REW] KEY
277
REWIND BANNER PRESENTED TO USER WITH REWIND VIDEO
[STOP] KEY
278
STOP BANNER PRESENTED TO USER AND VIDEO IS STOPPED
D FIG. 5
[PLAY] KEY
279
PLAY BANNER PRESENTED TO USER AND VIDEO IS PLAYED
281
PLAY BANNER REMOVED AFTER TIME OUT
[PAUSE] KEY
282
PAUSE BANNER IS PRESENTED TO USER WITH VIDEO PAUSED
284
REMOVE PAUSE BANNER, STOP VIDEO AND DISPLAY STOP VIDEO BANNER AFTER TIME OUT
OTHER KEYS
FUNCTIONALITY OF RESIDENT APPLICATION APPLIES
285

FIG. 20

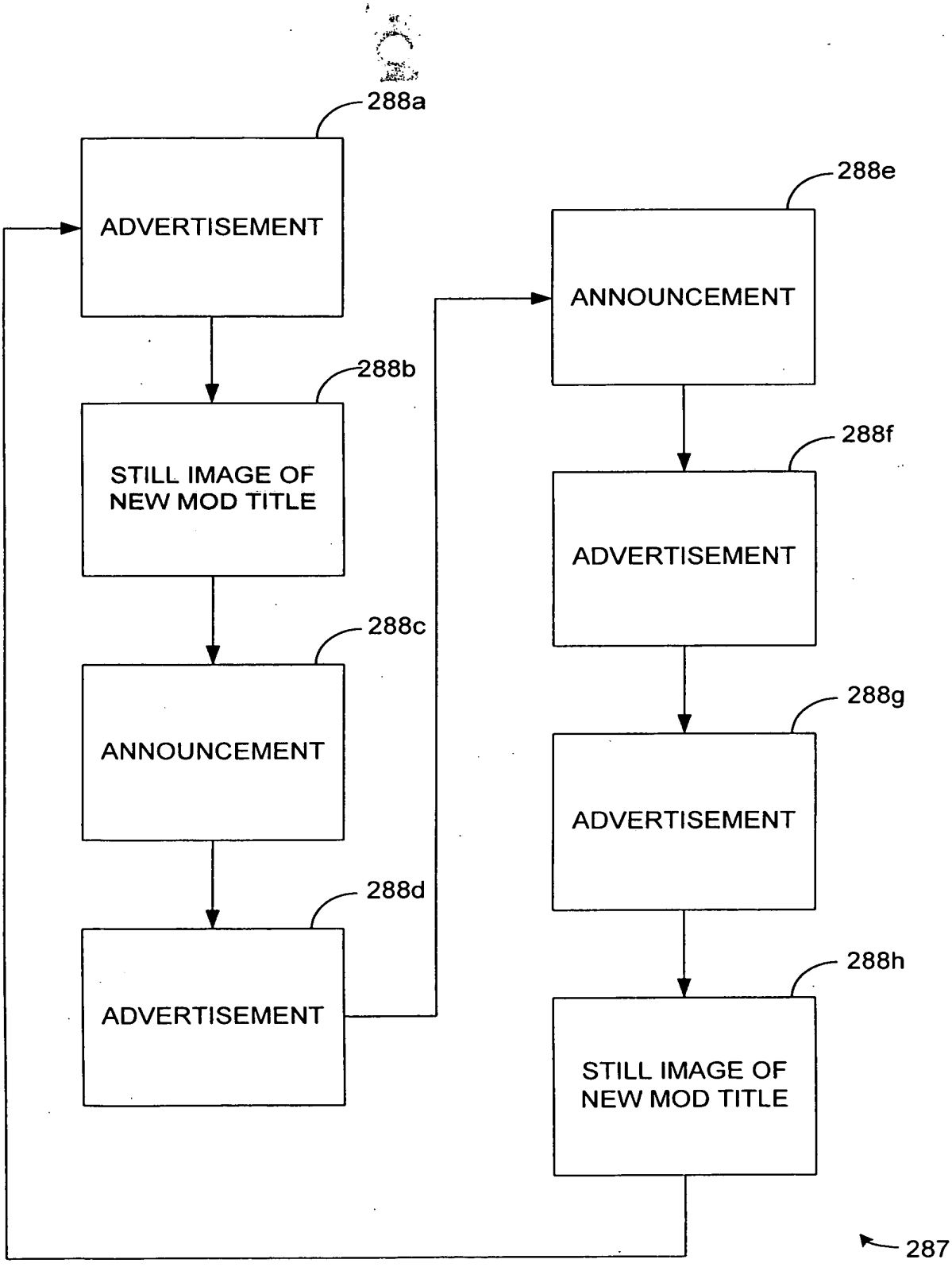

288a
ADVERTISEMENT
288b
STILL IMAGE OF NEW MOD TITLE
288c
ANNOUNCEMENT
288d
ADVERTISEMENT
288e
ANNOUNCEMENT
288f
ADVERTISEMENT
288g
ADVERTISEMENT
288h
STILL IMAGE OF NEW MOD TITLE
287

FIG. 21

FUNCTIONAL SET UP SCREEN

- PAUSE INVOKES STOP MODE AFTER _____ MINUTES (5-30) (5 IS THE DEFAULT)
- TEAR DOWN SESSION UPON STOP AFTER _____ MINUTES (5-30) (10 IS THE DEFAULT)
- NOTIFY USER _____ MINUTES BEFORE SESSION TEAR DOWN (5 IS THE DEFAULT)
- USER CAN CANCEL BEFORE _____ MINUTES INTO RENTAL OF VOD TITLE (0-15) (1 IS THE DEFAULT)
- USER CAN PREVIEW VOD TITLE _____ MINUTES (1-5) (5 IS THE DEFAULT)
- INITIAL VIEW: ☒ FEATURED TITLES
  ☐ ALL TITLES
  ☐ COMEDY
  ⋮
  (LIST OF ALL OTHER BROWSE-BY CATEGORIES)

295

FIG. 22